

HANDBOOK OF PHONOLOGICAL DATA  
FROM A SAMPLE OF THE WORLD'S LANGUAGES

A Report of the Stanford Phonology Archive

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	650 Telefol	650 Telefol	650 Telefol
650	01 p <sup>01</sup> 30 31 (loan,allo) */f/	11 n [d/n] <sup>66</sup> (free)	55 a-long <sup>39</sup>
650	02 b *[w] [beta] <sup>60</sup> [b-implosive] <sup>61</sup> (free)	12 eng <sup>03</sup> 33 [g/eng] <sup>66</sup> (free)	56 u *[o-open] [upsilon] <sup>71</sup> (free,allo) [u-dot] <sup>75</sup>
650	03 t <sup>01</sup>	13 l <sup>37</sup> *[d] *[d-implosive] [r-flap] <sup>67</sup> [l-retroflex] <sup>68</sup> [l-fricative] <sup>04</sup> 69 [l-flap] <sup>70</sup>	57 u-long <sup>39</sup> [u-dot-long] <sup>75</sup>
650	04 d <sup>32</sup> (allo,loan,restricted) */l/ [d-implosive] <sup>61</sup> (free) */l/	14 glottal stop <sup>38</sup> (limited)	58 o-open-long <sup>39</sup> [o-open] <sup>72</sup> */u/
650	05 k <sup>01</sup> 03 *[k-labialized] [gamma] <sup>62</sup> [k-unreleased] <sup>63</sup>	15 h <sup>38</sup> (limited)	59 yod <sup>40</sup>
650	06 k-labialized <sup>01</sup> 03 33 64 (tag(-),allo) */k/	51 i *[epsilon] [iota] <sup>71</sup> (free,allo)	60 w <sup>33</sup> 60 (tag(-),free) */b/
650	07 s <sup>30</sup> 34 (loan,surface)	52 i-long <sup>39</sup>	81 high <sup>77</sup> (tag(+),allo) *[mid] *[lower-mid] */mid/ [higher-mid] <sup>78</sup> */mid/ [lower-mid-rising] <sup>79</sup>
650	08 f <sup>31</sup> *[p] [phi] (free) [p/phi] <sup>65</sup> (free)	53 epsilon-long <sup>39</sup> [epsilon] <sup>72</sup> */i/	82 mid <sup>80</sup> (tag(+),allo) *[higher-mid] *[high] */high/ [high-falling] <sup>81</sup> [mid-falling] <sup>82</sup> [lower-mid-falling] <sup>83</sup> [lower-mid] <sup>84</sup> */high/
650	09 s <sup>36</sup>	54 a [ash-dot] <sup>73</sup> (free) [epsilon-dot] <sup>74</sup> [schwa] <sup>76</sup> (free,neutral)	
650	10 m [b/m] <sup>66</sup> (free)		
650	\$a Telefol \$b Kayalikmiin \$d Central and South New Guinea \$e SW Territory of New Guinea (West Sepik) \$f 4,000 \$g Merritt Ruhlen \$h Jim Lorentz (review) \$i John Crothers (editor)		
650	\$a Healey, Alan \$b 1964 \$c Telefol Phonology \$f (Pacific Linguistics, Series B, No. 3) \$q informants: 2 \$r 2 years		
650	\$a HALF-VOICE VOWELS (NON-DISTINCTIVE) \$A "The vowel of the first syllable is partially devoiced following initial /k/ and /t/." (p.22)		
650	\$a LONG VOWELS \$A Healey analyzes long vowels as geminates. Long vowels are phonetically "approximately 1 1/2 moras (in) length as compared with a...(short) vowel." (p.2) "The nuclei of medial syllables do not exhibit length contrasts and have all been interpreted as single (= short) vowels (V)." (p.5) "In...polysyllabic words, for each vowel quality there is a clear trend for geminate (= long) vowels to predominate in the final syllable and single vowels to predominate in the initial syllable." (p.21) See p.6-12 for measurements of vowel length and discussion.		
650	\$a PHONOLOGICAL WORD \$A (C)V(C)(CV(C))... \$A Words have up to six syllables. (p.2, 5)		
650	\$a STRESS \$A "The author has not been able to detect any consistent and marked differences in loudness between the syllables of a word. On various occasions 'stress' has been noted, but later checking has shown that such observations were in fact falling pitches, high pitches, or phonetically long vowels." (p.28) However there is clearly a type of accent, in that short		

vowels in the initial syllable of polysyllables are extremely short and tend to reduce. [JHC]

650 \$a SYLLABLE \$A (C)V(:)(C)

650 \$a TONE \$A domain of tone: mora \$A Long vowels in initial syllables (and monosyllables) are bi-moric, i.e. have two tonemes. Other syllables have a single toneme, including long vowels in final syllables. \$A Frequency of tonal combinations in monomorphemic disyllabic stems: (a) nouns, adjectives and verbal adjuncts: mid-high 48 percent; high-high 43 percent; mid-mid 8 percent; high-mid 1 percent. (b) verbs: high-high 77 percent; mid-high 16 percent; mid-mid 6 percent; high-mid 0 percent. (p.27) \$A Healey labels the two tones of Telefol the UP and DOWN tones. In terms of absolute pitch there is considerable overlap in the values of the two tones, but in the absence of special conditioning factors the UP tone is basically high level, and the DOWN tone basically mid level. Word internally there is nearly total progressive (i.e. perseveratory) assimilation of two adjacent tonemes, but the second toneme exerts a phonetic effect on the toneme following it, and thus is not completely lost. Thus a high toneme assimilates to a preceding mid, and mid to preceding high, and the assimilation proceeds pairwise through a word. (The assimilatory rule must be thought of as applying to the basic toneme values; a given syllable assimilates to the value of the preceding basic toneme.) A word final mid toneme exerts a slight lowering effect on the first syllable of the following word. If there is a pause after the word, and the last two tonemes are different (i.e. high-mid, or mid-high), a contour tone is produced which begins at the assimilated value and moves to higher-mid or to low, for final basic high or mid respectively. In the case of a basic sequence of mid followed by high before pause, if the preceding tone is high the assimilation produces the phonetic sequence high followed by higher-mid followed by pause, and there is no further rise on the last syllable. As Healey notes, the general effect of the rules is to move the entire basic tonal pattern of a word one syllable to the right, and to pile up the last two tonemes on the last syllable before pause. [JHC] The above rules hold for sequences of syllables with short vowels as well as "words whose first syllable-nucleus is short but whose final syllable-nucleus is long." (p.28) For words which have a long vowel in the first syllable, the pitch contours are "very similar to the corresponding contour for a word that has the same sequence of tonemes but all on short syllable nuclei." (p.31)

650 \$a VOWEL HARMONY \$A "Five morphemes within verbs exhibit vowel harmony with the vowel of the following syllable--usually a subject-person suffix." (p.26) This is a consequence of the general tendency for short vowels of initial syllables to be extremely short and obscure in quality. (p.21-23)

650 01 \$A The voiceless stops are "lightly aspirated" (p.17); "unaspirated when followed by consonants." (p.13) (This may mean unreleased.)

650 03 \$A "Velar consonants tend towards a uvular articulation when contiguous with central and back vowels." (p.13)

650 04 \$A Quality of voicing of [l-fricative] is not specified.

650 30 \$A "/g/ and /p/ occur only in a few loan words." (p.12)

650 31 \$A /p/ could also be analyzed as an allophone of /f/, which doesn't occur syllable-finally. /p/ occurs only word finally.

650 32 \$A [d] can be analyzed as the word or morpheme initial allophone of /l/. Healey finds one Telefol word with intervocalic, morpheme-internal [d]. Other instances of intervocalic [d] are loans. (p.14)

650 33 \$A Both /w/ and /k-labialized/ occur only word initially, and are thus in complementary distribution with /eng/.

650 34 \$A "/k.d/ is the single phonetic segment [g]." (p.13) (Also, /d/ is realized as [g] morphophonemically after /eng/. Monomorphemic [eng.g] clusters are analyzed by Healey as /eng.d/. (p.14)

650 36 \$A /s/ does not occur syllable-finally. (p.12)

650 37 \$A [d] is the word and morpheme initial allophone of /l/. But intervocalic morpheme internal [d] occurs in loans and one native word, in contrast with [r-flap].

650 38 \$A "/h/ and /glottal stop/ occur only in a few particles such as the exclamatory imperative enclitic." (p.12)

650 39 \$A Vowel length is not distinctive in medial syllables.

650 40 \$A /yod/ does not occur in syllable final position. (p.12)

650 60 \$A /b/ is realized as [beta] intervocalically after unrounded vowels, as [beta] or [w] intervocalically after rounded vowels. (p.15)

- 650 61 \$A "Word-initial /b/ and /d/ sometimes vary to slightly ingressive [b-implosive] and [d-implosive]." (p.13)
- 650 62 \$A /k/ is realized as [gamma] in intervocalic position. (p.12)
- 650 63 \$A "Voiceless stops tend to be only lightly aspirated, and are unaspirated when followed by consonants." (p.13) In the case of /k.k/ this clearly means unreleased, since Healey writes the cluster phonetically as [k-aspirated-long].
- 650 64 \$A "/k/ is labialized following /u.eng/, but has less [w] off-slide than /k-labialized/." (p.13)
- 650 65 \$A "Word-initial /f/ sometimes varies to the affricate [p/phi]." (p.13)
- 650 66 \$A "Nasals tend to have a slight homorganic voiced stop at their onset when they follow long vowels." (p.13)
- 650 67 \$A /l/ is realized as [r-flap] in intervocalic position. (p.12)
- 650 68 \$A "/l/ tends to be retroflexed in word-final position following /a/." (p.13)
- 650 69 \$A "/l/ tends to be...fricative preceding /t/." (p.13)
- 650 70 \$A "The cluster /l.d/ sounds more like [l-flap] than [l.d]." (p.13)
- 650 71 \$A /i, u/ are lowered to [iota, upsilon] regularly in initial syllables of polysyllables. Some speakers also have the variants in final syllables (also monosyllables). (p.19-26)
- 650 72 \$A There is no length contrast in the lower-mid vowels. The long ones occur in initial and final syllables. Short [epsilon] and [o-open] occur in the interior syllables of polysyllables, where they can be considered variants of the long lower-mid vowels. In the initial syllable of polysyllables they occur only after an initial consonant, when followed in the next syllable by /epsilon-long/ or /o-open-long/ respectively. Here they can be treated as variants of /i/ and /u/ in turn. (p.19-26)
- 650 73 \$A Some speakers have [ash-dot] as a variant of /a/ in final syllables (also monosyllables).
- 650 74 \$A /a/ is realized as [epsilon-dot] in the initial syllable of polysyllables.
- 650 75 \$A /u, u-long/ are realized as [u-dot, u-dot-long] adjacent to /s/ or /yod/. (p.19)
- 650 76 \$A Short vowels may be reduced to [schwa] between consonants in the initial syllable of polysyllables. (p.22-24)
- 650 77 \$A /high/ is realized as [high] following another /high/ word internally or across word boundary. /mid/ is realized as [high] following /high/ in the same word when not before pause, except in the antepenultimate syllable of a four syllable nucleus.
- 650 78 \$A /high/ is realized as [higher-mid] (1) after pause, (2) after final /mid/ in the preceding word, (3) word internally after a sequence /high.mid/ (except when it is in the antepenultimate syllable of a four syllable nucleus). /mid/ is realized as [higher-mid] after /high/ when in the antepenultimate syllable of a four syllable nucleus. (p.26ff)
- 650 79 \$A /high/ is realized as [lower-mid-rising] before pause when preceded in the same word by /mid/ which is not itself preceded in the same word by /mid/.
- 650 80 \$A /mid/ is realized as [mid] (1) after pause, (2) after /high/ on the last syllable of the preceding word when not before pause, (3) when a directly preceding /mid/ is realized as [mid] and /high/ follows word internally one or two syllables away. /high/ is realized as [mid] (1) when it is not before pause and follows a /mid/ which is realized as [mid], (2) after /high.mid/ in the penultimate syllable of a four syllable nucleus.
- 650 81 \$A /mid/ is realized as [high-falling] before pause following /high/ in the same word.
- 650 82 \$A /mid/ is realized as [mid-falling] in monosyllables before pause, when the preceding word ends in /high/, or when preceded by pause.
- 650 83 \$A /mid/ is realized as [lower-mid-falling] before pause following a final /mid/ in the preceding word. (p.26ff) [JHC]
- 650 84 \$A /mid/ is realized as [lower-mid] following /mid/ word internally or across word boundary, when not before pause. However word internally following /mid/ realized as [mid] and preceding /high/ one or two syllables away, there is no lowering. /high/ is realized as [lower-mid] following a /mid/ which is realized as [lower-mid] when not before pause.